



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 52

[Docket No. 52-0010; NRC-2010-0135]

RIN 3150-AI85

Economic Simplified Boiling-Water Reactor Design Certification

AGENCY: Nuclear Regulatory Commission.

ACTION: NUREG; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing NUREG-1966, Supplement 1, “Final Safety Evaluation Report Related to the Certification of the Economic Simplified Boiling-Water Reactor Standard Design, Supplement 1.”

DATES: [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Please refer to Docket ID NRC 2010-0135 when contacting the NRC about the availability of information regarding this document. You may access publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID NRC 2010-0135. Address questions about NRC dockets to Carol Gallagher; telephone: 301-287-3422; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):**
You may obtain publicly available documents online in the ADAMS Public Documents collection

at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “[ADAMS Public Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

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SUPPLEMENTARY INFORMATION:

On August 24, 2005, in accordance with subpart B of 10 CFR part 52, GEH tendered its application for certification of the Economic Simplified Boiling-Water Reactor (ESBWR) standard plant design (ADAMS Accession No. ML052450245) with the NRC. The NRC staff issued a final safety evaluation report (FSER) for the ESBWR design in March 2011 (ADAMS Accession No. ML103470210). The NRC also published a proposed rule to certify the ESBWR design in the *Federal Register* on March 24, 2011 (76 FR 16549). The FSER and the proposed rule were based on the NRC’s review of Revision 9 of the ESBWR design control document (DCD).

In late 2011, while the NRC staff was preparing the final rule, issues were identified with the ESBWR steam dryer, a nonsafety-related component. These issues called into question certain

conclusions in the staff's safety review. Publication of the FSER as a NUREG was delayed while the steam dryer design methodology was under review. The NRC issued requests for additional information (RAIs). Resolution of these issues required additional analyses by the applicant and review by the NRC staff in order for the NRC staff to conclude the design is acceptable for certification. Responses to all RAIs were received in December 2013. The Final Safety Evaluation Report was issued by the NRC as NUREG-1966 (ADAMS Accession No. ML14100A304) in April 2014 to document the NRC staff's technical review of the ESBWR design. Subsequently, the NRC issued an advanced supplemental safety evaluation report (SER) to address several matters identified by the NRC and revisions to the ESBWR DCD in Revision 10. The advanced supplemental SER was issued on April 27, 2014 (ADAMS Accession No. ML14043A134) and was referenced in a supplemental proposed rule published on May 6 2014 (79 FR 25715; May 6, 2014). This supplement includes the NRC staff's safety review of the steam dryer issues (reactor pressure vessel internals), as well as: protection of the offgas system within the turbine building; Bulletin 2012-01 and GDC 17; seismic analysis of fuel in spent fuel and buffer pools; ESBWR DCD Tier 1, ASME code definition; ESBWR DCD Tier 1, ASME code component design verification ITTAAC; and ESBWR DCD Tier 2, editorial corrections in Chapters 16 and 16B. On the basis of the evaluation described in the ESBWR FSER (NUREG-1966) and the supplemental FSER issued on September 24, 2014 (ADAMS Accession No. ML14328A238), the NRC staff concluded that the changes to the DCD (up to and including Revision 10 to the ESBWR DCD) were acceptable and that GEH's application for design certification met the requirements of Subpart B to 10 CFR Part 52 that are applicable and technically relevant to the ESBWR standard plant design. The NRC then published a final rule to certify the ESBWR design in the *Federal Register* on October 15, 2014 (79 FR 61944). This document announces the supplemental final safety evaluation report was

published as NUREG-1966, Supplement 1 in September, 2014 (ADAMS Accession No. ML14265A084).

Dated at Rockville, Maryland, 20th day of November 2014.

For the Nuclear Regulatory Commission.

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